CLAIMS

1. A mechanism of separating and purifying DNA and the like which is an integral monolith structure, characterized in that through-pores (macro-pores) continuously extending from one end to the other end and corresponding to the sizes of nucleic acids are provided and configured so that nucleic acids corresponding to the through-pores (macro-pores) can be retained respectively by allowing a solution containing nucleic acids to be separated to pass therethrough.

2. The mechanism of separating and purifying DNA and the like according to claim 1, characterized in that the monolith structure employs an inorganic material such as glass or silica or a hybrid material containing an organic material and an inorganic material, which is a porous body having macro-pores (through-pores) penetrating from the upper surface to the lower surface.

3. The mechanism of separating and purifying DNA and the like according to claim 1 or 2, characterized in that the porous body of the monolith structure has micro-pores in the macro-pores.

4. The mechanism of separating and purifying DNA and the like according to any of claims 1 to 3, characterized in that the porous body of the monolith structure has a macro-pore size of 1 to 100 μm and a micro-pore size of 0 to 100 nm.

5. The mechanism of separating and purifying DNA and the like according to any of claims 1 to 4, characterized in that a disc formed with the monolith structure is placed in a column tube to form a monolith solid phase column.

6. The mechanism of separating and purifying DNA and the like according to any of claims 1 to 5, characterized in that the mechanism employs a monolith solid phase column formed by detachably attaching a base formed with the monolith structure to a cylindrical body having the top and the bottom opened.